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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------------------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/071,682 | 02/08/2002 | Ronald J. Martis | H0003204 (4710) | 4038 |
| 128 | 7590 | 10/28/2003 | EXAMINER | |
| HONEYWELL INTERNATIONAL INC. 101 COLUMBIA ROAD P O BOX 2245 MORRISTOWN, NJ 07962-2245 | | | POKER, JENNIFER A | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2832 | |

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|-------------------------------|--|
| Office Action Summary | Application No. 10/071,682 | Applicant(s) MARTIS ET AL. | |
| | Examiner Jennifer A. Poker | Art Unit 2832 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

General Status

1. This is a first action on the merits of application filed on February 8, 2002. Claims 1-11 are pending and are being examined.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the square, rectangular and triangular shapes of the magnetic core must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the square, rectangular and triangular shapes of the magnetic core as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 1 is objected to because of the following informalities: It recites the limitations "the level of magnetic fields", and "the frequency". There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

5. Claim 2 is objected to because of the following informalities: applicant states, "of at least about about..." Appropriate correction is required.

6. Claim 4 is objected to because of the following informalities: It recites the limitations "...the group consisting of..." There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

7. Claims 6-11 are objected to because of the following informalities: the preambles are inconsistent with respect to the claims on which they dependent. Claims 1-5 introduce a magnetic core. Claims 6 and 7 introduce a combination of inductor and magnetic core. Claims 8-11 further introduce a combination of current transformer, inductor, and magnetic core. Appropriate correction for consistency is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

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9. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, applicant states, "...which does not change with the level of magnetic fields applied and the frequency used." This limitation is very vague. It further is not a positive limitation. Examiner is not clear as to what level of magnetic field or frequency used. Examiner understood the claim to mean that simply the magnetic core has linear B-H characteristic. Appropriate correction is required. Prior art was applied accordingly.

Regarding claim 2, applicant states, "...of at least about 10kG..." This renders the claim indefinite. Correction is required.

Regarding claims 8 and 9, applicant states, "...an electrical current to be monitored or measured with accuracy." This limitation does not further add to the structure of the claim. Furthermore, examiner is unaware of other any other ways of monitoring or measuring than with accuracy.

Regarding claims 10 and 11, applicant states, "...adapted for measurement by a voltmeter..." It has been held that a recitation with respect the manner in which a claimed apparatus is intended to be employed, in this case, "to be adapted for measurement by a voltmeter," does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Otte, et al, discloses a magnetic core suitable for use in a current transformer or the like; the magnetic core comprising magnetic properties with permeability, in contrast to conventional Permalloy cores, almost constant at the high value over a wide range. This was possible because, on one hand, the alloy used had a high saturation induction of approximately 1.2 Tesla (column 3, lines 59-60; column 9, lines 1-8).

One skilled in the art, at the time the invention was made, would have found it obvious to combine the teachings of Ito, et al, in view of Hasegawa, et al, with the teachings of Otte, et al, and utilize an alloy in a magnetic core; the alloy having linear B-H characteristic and having a saturation induction of approximately 1.2 Tesla in order to enhance magnetic properties and maintain permeability at a constant.

Furthermore, it would have been obvious to one having ordinary skill in the art, at the time the invention was made to incorporate a suitable range of saturation induction, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding claim 3, Otte, et al, further discloses that the amorphous ferromagnetic strips are coiled in order to form the magnetic cores.

Regarding claim 4, Ito, et al, illustrates in figures 1-17 that the shape of the core may be rectangular.

Regarding claims 5-9, Otte, et al, further discloses the utilization of copper windings about the core is known in the art. Copper material would be used for the purposes of good conductivity of electrical current (background of the disclosure).

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Regarding claims 11 and 12, Otte, et al, further discloses that it has been known in the art that transformers or other the like have an outputting voltage, which may be detected by energy meters for measurements (background of invention).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Poker whose telephone number is 703-305-4037. The examiner can normally be reached on 10:00-8:30 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on 703-308-7619. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

Jap
October 20, 2003



KARL D. EASTHOM
PRIMARY EXAMINER